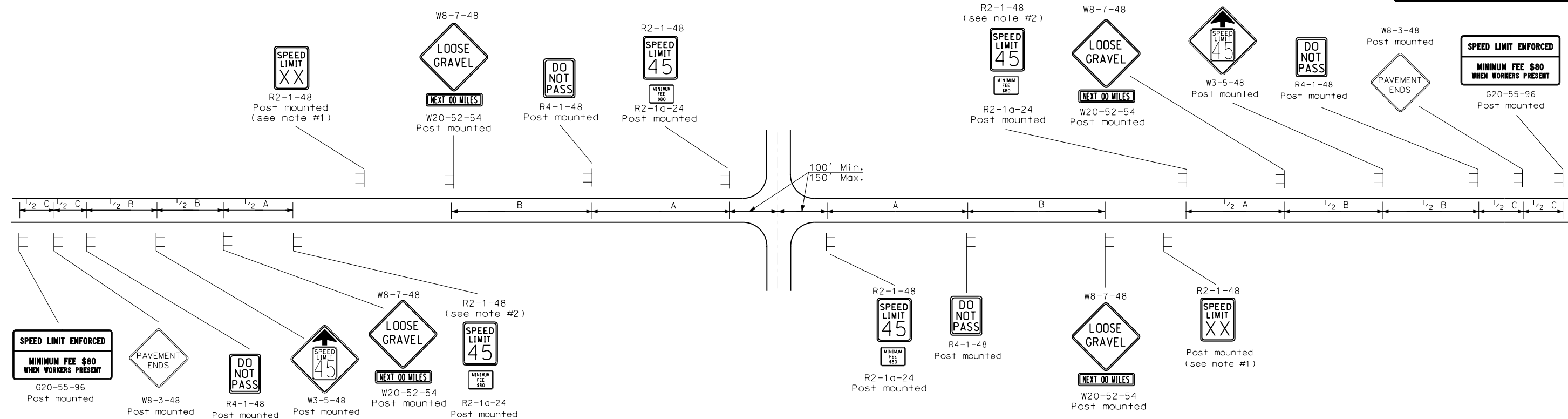


CONSTRUCTION SIGN AND BARRICADE LOCATION DETAILS

D-704-37



CONSTRUCTION SIGN LAYOUT

For both 2 and 4 lane highways with intersecting routes where traffic is maintained over Mine and Blend Projects.

Notes

1. The speed limit shall be re-established. The exact speed limit shall be determined in the field, dependent on location and conditions.
2. The reduced speed limit shall be determined dependent on the in place speed limit before construction. The speed limit reduction should not exceed 10 mph below the existing speed limit, unless the design speed of the work zone feature has been reduced below the 10 mph. In this case, the speed limit reduction shall not exceed 30 MPH. Where speed limits are to be reduced more than 30 MPH, a second speed limit sign shall be installed with the desired speed reduction but shall not exceed 30 MPH. The second speed limit sign shall be placed at 1/2 B.
3. When warning signs are used in urban areas and the signs are not portable, flags shall be installed. The flags shall be 24 inches square, mounted perpendicular to the edges of the diamond sign, and at such a distance above the edge so that when the flag is limp it will not touch the sign. Rural areas will not require flags.
4. Existing speed limit signs within a reduced speed zone shall be covered.
5. Sign no. R2-1-48, R4-1-48, W8-7-48, and W20-52-54 shall be placed just after all important intersections and every five miles in either direction. No short term markings shall be placed after mine and blend operation. Short term markings shall be placed after the prime operation.

6. The contractor has the option of using portable sign supports in lieu of post mounted sign as shown on the standard drawings as specified in section 704.03 C.
7. The layouts show the signs needed before work begins. The requirements at the actual work areas will require the use of other standards. If the speed limit is reduced in the work areas, the speed limit signs shall have the R2-1a-24 sign placed below.

ADVANCE WARNING SIGN SPACING			
Road Type	Distance Between Signs Min. (ft)		
	A	B	C
Urban - Low Speed (30 mph or less)	150	150	150
Urban - Low Speed (over 30 to 40 mph)	280	280	280
Urban - High Speed (over 40 mph to 50 mph)	360	360	360
Rural - High Speed (over 50 mph to 65 mph)	720	720	720
Urban Expressway and Freeway (55 mph to 60 mph)	850	1350	2200
Rural Expressway and Freeway (70 mph to 75 mph)	1000	1500	2640
Interstate/4-Lane Divided (Maintenance and Surveying)	750	1000	1500

KEY	
	Type I barricade
	Type II barricade
	Type III barricade
	Sign
	Delineator drum
	Cones
	Work area
	Flagger
	Sequencing arrow panel
	Type A delineator or vertical panels back to back

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
07-09-99	
REVISIONS	
DATE	CHANGE
10-01-99	General Revisions
01-30-03	Pavement end sign
07-25-03	Revised R2-1 and R2-1a
04-01-04	Rev fee sign & warning sign spacing Rev note 2. Add note 7
12-01-04	PE Stamp added
06-29-05	Replaced R2-5a with W3-5. Rev. Adv. warning table. Rev. note 2
10-31-06	Revised location of exit speed limit.

This document was originally issued and sealed by
MARK S. GAYDOS
Registration Number
PE- 4518 ,
on **10/31/06** and the original document is stored at the
North Dakota Department of Transportation